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| 10/587,419 | 07/28/2006 | Naoshi Nagai | 1000023-000115 | 7281 |
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| EXAMINER JONES JR., ROBERT STOCKTON | | | | |
| ART UNIT 1796 | | PAPER NUMBER | | |
| NOTIFICATION DATE 11/17/2009 | | DELIVERY MODE ELECTRONIC | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary

Application No.

10/587,419

Applicant(s)

NAGAI ET AL.

Examiner

ROBERT JONES JR.

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-22 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/86)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

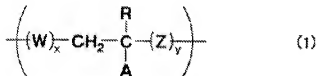
In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

- Group I, claim(s) 1-8, drawn to a polymer having at least a structural unit represented by Formula 1 shown in Claim 1.
- Group II, claim(s) 9-11, drawn to a composition comprising a polymer according to group 1, a variety of additives, and an additional thermoplastic resin.
- Group III, claim(s) 12, drawn to an antistatic agent.
- Group IV, claim(s) 13, drawn to an adhesive.
- Group V, claim(s) 14, drawn to a coating composition.
- Group VI, claim(s) 15-16, drawn to a molded product.
- Group VII, claim(s) 17, drawn to a cosmetic material.
- Group VIII, claim(s) 18, drawn to a releasing agent for toner.
- Group IX, claim(s) 19, drawn to a pigment dispersant.
- Group X, claim(s) 20, drawn to a lubricant for vinyl chloride resins.
- Group XI, claim(s) 21, drawn to an emulsion composition.
- Group XII, claim(s) 22, drawn to an oxygen trapping composition.

The inventions listed as Groups I-XII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

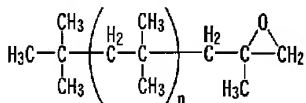
Groups I-XII lack unity of invention *a posteriori* over Tsutomu et al (JP 2003-292602; machine translation referred to herein).

Regarding Groups I-XII, the common technical feature is encompassed by a polymer having at least a structural unit represented by the following Formula (1):



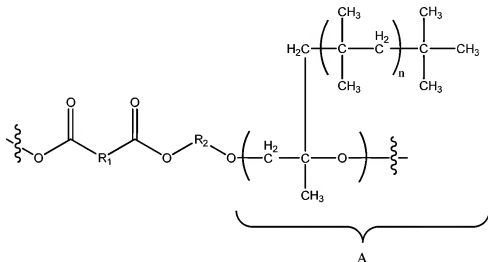
wherein A is a polymer of an olefin having 2 to 20 carbon atoms, the polymer having a weight average molecular weight of 400 to 500,000; R is a hydrogen atom, or an alkyl group or aralkyl group having 1 to 18 carbon atoms; W and Z are each independently an oxygen atom, an NH group or a sulfur atom; and x and y are each 0 or 1, with the proviso that at least one of them is 1.

Tsutomu teaches a polyester composition having improved hydrolytic resistance and stretch characteristics obtained by kneading a thermoplastic polyester resin and a liquid polybutene having a terminal epoxy group (Abstract). The epoxidized polybutene is illustrated below (p. 6, [0011]):



This compound is obtained from polybutene having a molecular weight of from 200-10,000 (p. 8, [0021]). The epoxy group reacts with the carboxyl and/or hydroxyl

groups in the polyester (p. 9, [0024]). The result of this reaction will be a polymer having the general formula shown below:



The bracketed segment A illustrated above is representative of the common technical feature of Groups I-XII, wherein A is a polymer of butene, an olefin having 4 carbon atoms, the polymer having an average molecular weight of 200 to 10,000; R is an alkyl group having 1 carbon atom; Z is an oxygen atom; x=0; and y=1.

Therefore, the common technical feature does not define a contribution over the prior art of Tsutomu, and thus does not constitute a special technical feature. Consequently a lack of unity is present between the inventions of Groups I-XII.

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

A. Within formula (1), election of a single species for each of W and Z must be made from the group consisting of an oxygen atom; an NH group; and a sulfur atom.

B. Group I includes claims drawn to polymers including repeat units of formulae (4), (5), and (6) that indicate either a polyester, polyurethane, or polyether, respectively (see Claim 4), as well as claims drawn to polysiloxanes (see Claims 5 and 6). Election of a single species from repeat units according to (4), (5), (6), or polysiloxane must be made.

C. Within formula (9), election of a single species for the variable G must be made from the following groups: hydrogen atom, alkyl group, alkali metal, and a group represented by formula (10).

D. Within formula (14), election of a single species for each of X and Y must be made from the following groups: hydroxyl; polyalkylene glycol; acyloxy; cyano; carboxyl; ester; amide; a group represented by formula (15); a group represented by formula (16); and a group represented by formula (17). Additionally, within formulae (15)-(17), election of a single species must be made for each of E, R⁷, R⁸, R⁹, R¹⁰, R¹¹, and R¹² from the groups described by Claim 7.

E. Within Group II, one material must be elected from the group consisting of salts of alkali or alkaline earth metals; surfactants; compatibilizing agents; and antistatic agents.

F. One thermoplastic resin must be elected from the group presented on p. 67, [0229].

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The claims are deemed to correspond to the species listed above in the following manner:

Claims 1-22 are affected by species **A**; Claims 4-6 are affected by species **B**; Claim 6 is affected by species **C**; Claim 7 is affected by species **D**; Claims 9-11 are affected by species **E**; and Claims 10 and 11 are affected by species **F**.

The following claim(s) are generic: none.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

The species under group A lead to three materially different classes of polymers. The species under group B are drawn to at least four different classes of polymers. The species under groups C and D are drawn to functional groups which will impart unique

structural and reactivity characteristics depending upon the type of group that is selected. The species included under group E represent distinct, unrelated materials. The species included under group F represent a wide variety of unrelated materials.

The Examiner elected to mail the requirement for election/restriction due to the complex nature of the requirement and the large number of groups present.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT JONES JR. whose telephone number is (571)270-7733. The examiner can normally be reached on Monday - Thursday, 9 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RSJ

/David Wu/
Supervisory Patent Examiner, Art Unit 1796